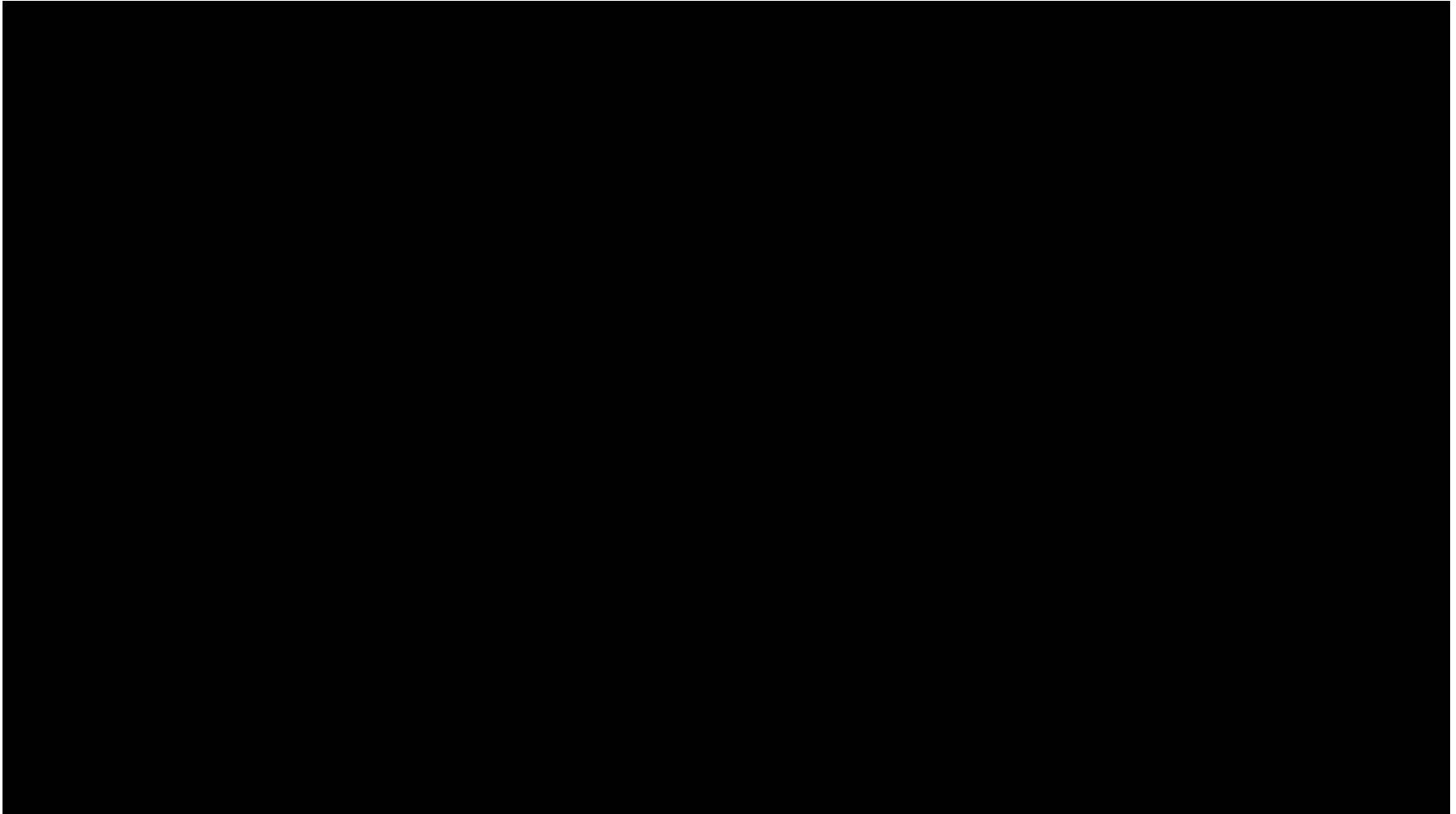




# **Joint Strike Fighter F-35 IUID Program Implementation**

F-35 IUID  
Lockheed Martin  
Aeronautics  
January 13, 2011





# F-35A CTOL



F-35A – Conventional Take Off and Landing (CTOL) variant will replace U.S. Air Force F-16s and A-10s, as well as aircraft employed by seven allied nations.





# F-35B STOVL



F-35B Short Takeoff/Vertical Landing (STOVL) variant will replace U.S. Marine Corps AV-8B Harriers and F/A-18s, U.K. Royal Air Force and Royal Navy Harrier GR.7s, GR.9s and Sea Harriers and Italian Harriers.





# F-35C CV



F-35C Carrier Variant (CV) will replace U.S. Navy F/A-18s.





# Partners

**Lockheed Martin is developing the F-35 with its principal industrial partners, Northrop Grumman and BAE Systems. Partner countries are the United Kingdom, Italy, the Netherlands, Turkey, Canada, Australia, Denmark and Norway. The F-35 program has about 900 suppliers worldwide.**

## Team JSF

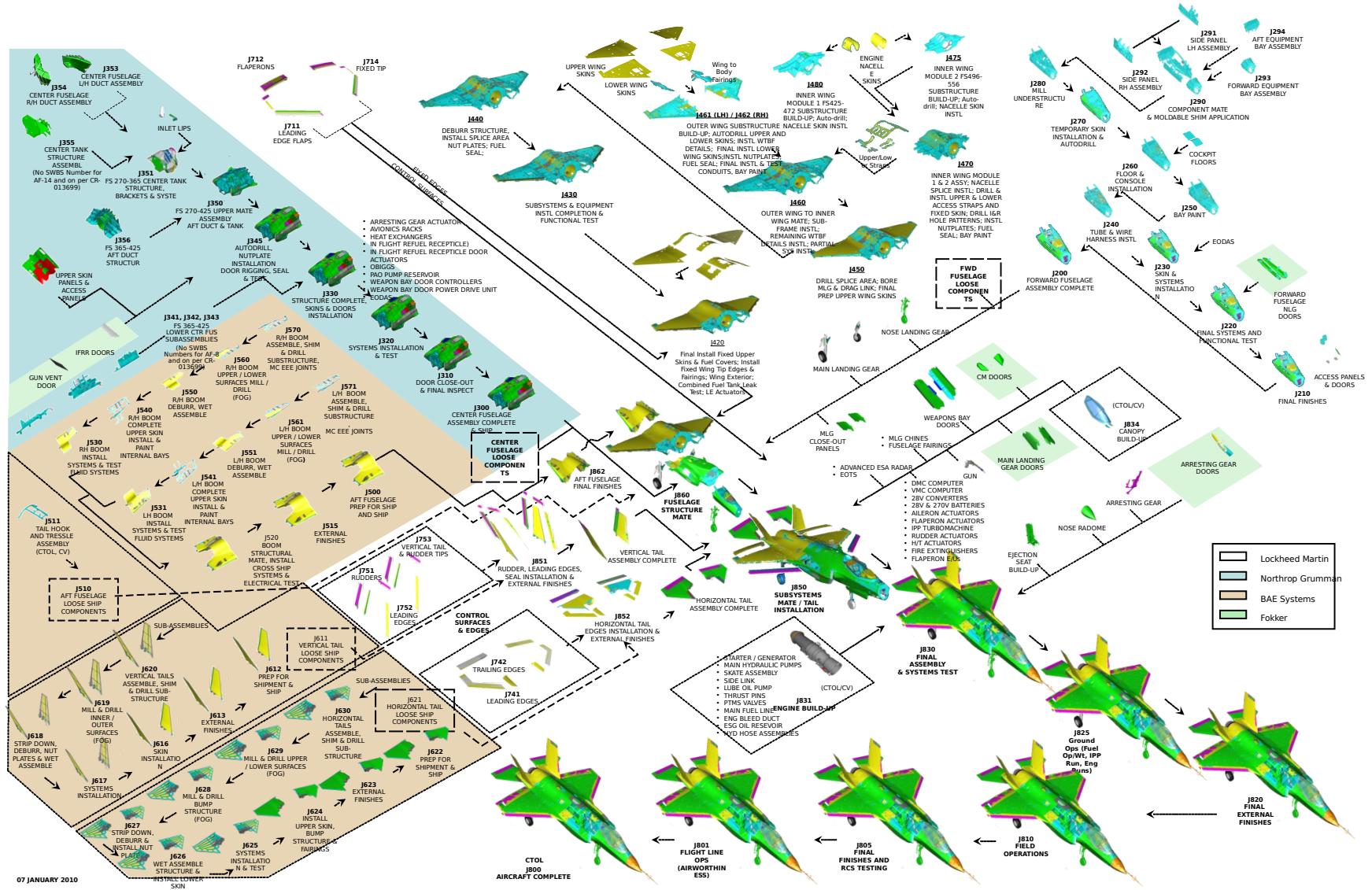


## 8 International Partners





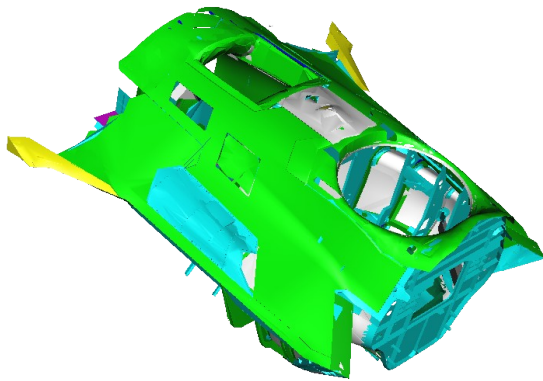
# Manufacturing Sequence Flow



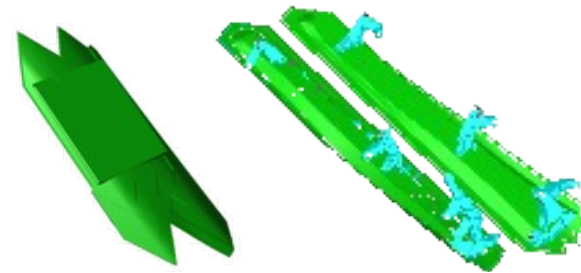


# Major Deliveries

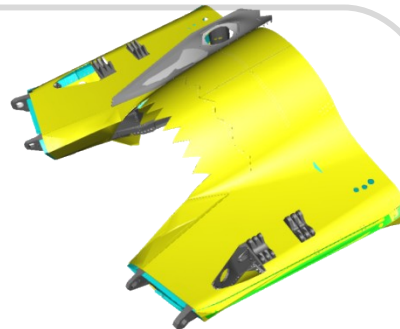
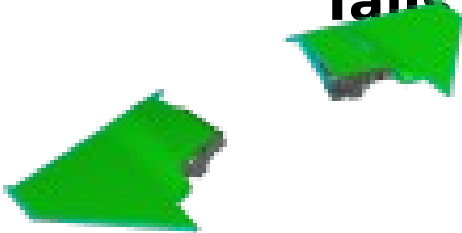
## NGC - Center Fuselage



## FOKKER - Misc Doors



## BAE - Aft Fuselage, Horizontal & Vertical Tails



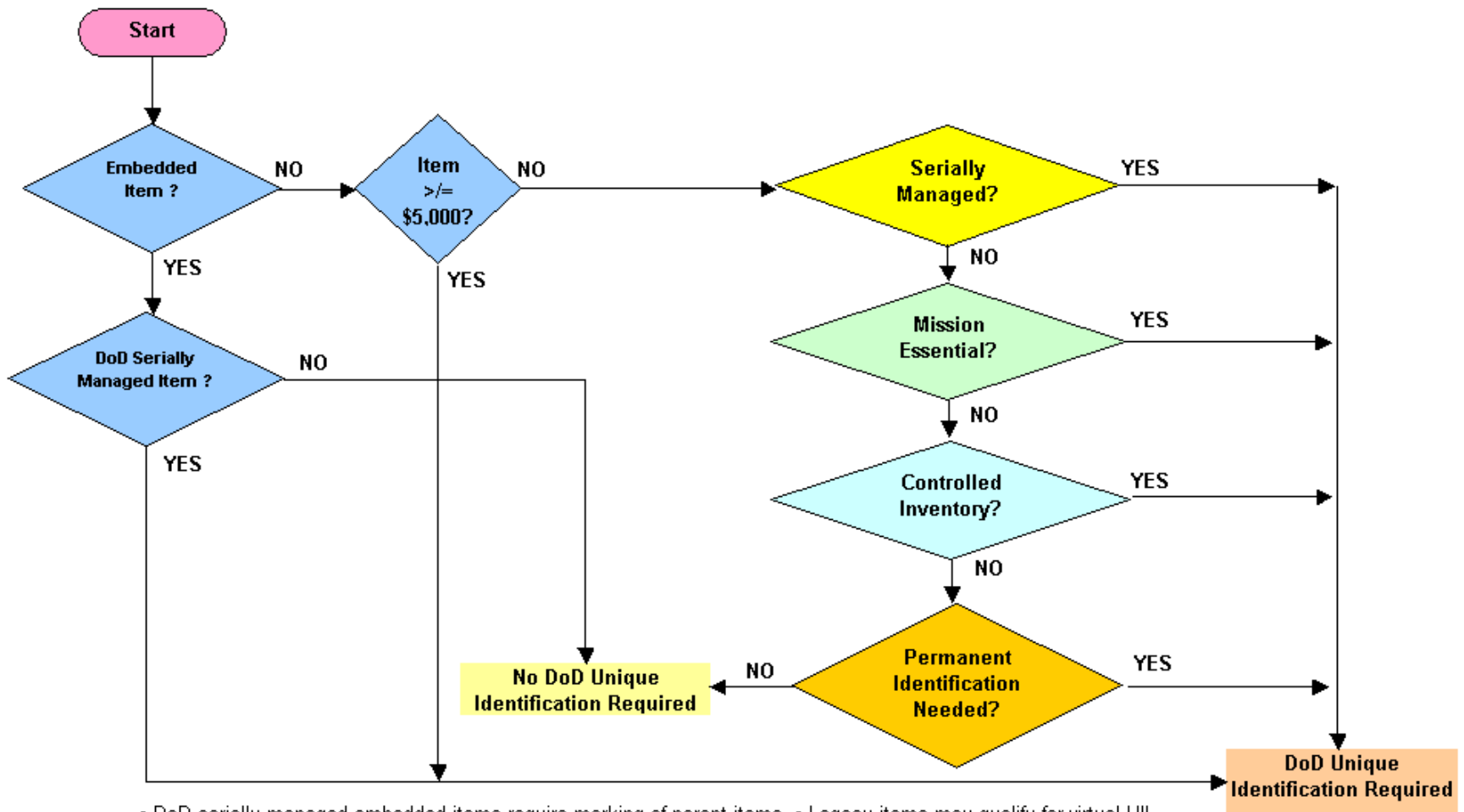
## Lockheed Martin Palmdale - Control Surfaces and Fuses







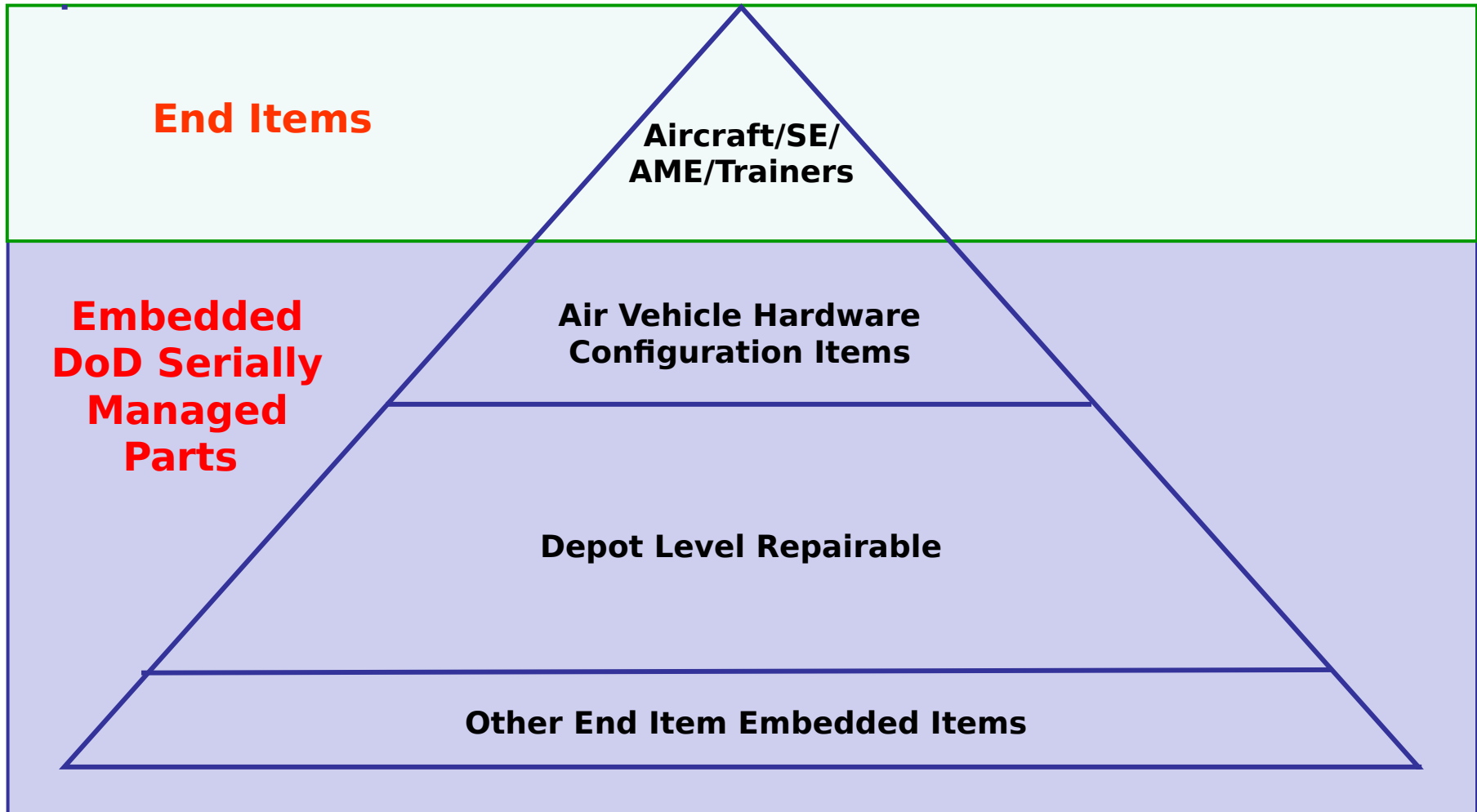
# OSD IUID Selection Guide



• DoD serially managed embedded items require marking of parent items • Legacy items may qualify for virtual UII



# F-35 IUID Selection Process Output





# Supplier UID Requirements



## Three Major Supplier Actions:

- **Develop Engineering (Unless BTP Supplier)**
  - Review and approval by Prime (LMA, BAE, NGC)
- **Create UID Label**
  - Ensure HRI and MRI Compliance (MIL-STD-130)
  - Supplier Responsible for Verification and Validation
- **Submit Data for each Delivered Part**
  - First time submittals to F-35 Data Library
  - Future submittals via LM UID Portal



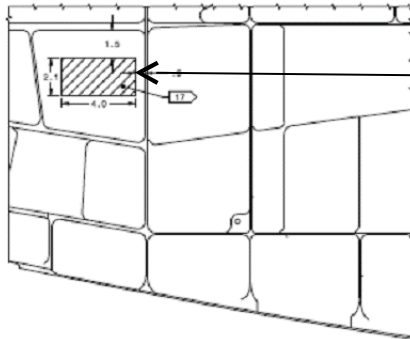
# F-35 UID Label Requirements



- **F-35 Suppliers create labels in compliance with MIL-STD-130**
  - Design Authority Suppliers use any material that meets the F-35 operational environment. The supplier must certify to MIL-STD-130 for verification requirements.
  - Build To Package (BTP) suppliers create labels in compliance with MIL-STD-130 and LMA-PN008
    - Approved materials are Photo-metal, Polyester and Tedlar decals.
    - LMA is currently testing DPM methods
- **Text Element Identifier format (TEI)**

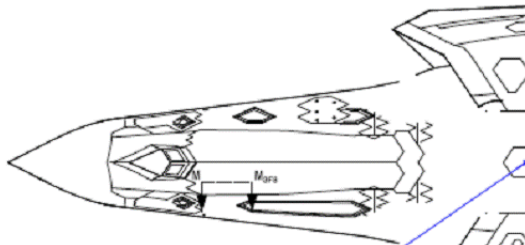


# F-35 Aircraft Nameplate



SECTION M-M100

4-0003  
STD 26372





# Supplier Data Requirement



Suppliers are required to submit UID records using a Excel template for each part shipped.

- The spreadsheet requires additional columns for Purchase Order and Line Item numbers.
- *When parts are received at LM Aero a query is made to I-GUIDES that looks for records with the same PO/Line Item numbers as the parts that were received.*
- *If three parts are received, but only two records reside in I-GUIDES, the parts are held in receiving until the additional records are added or corrected in I-GUIDES.*



F-35 Supplier  
Template



# Supplier Portal



- The spreadsheets can be directly imported by suppliers using Lockheed Martin's Supplier UID Portal.

**LOCKHEED MARTIN**  
We never forget who we're working for™

### Supplier UID Portal

This website is intended for Lockheed Martin suppliers to submit UID updates.

To access enter a purchase order number and date.

PO Number

PO Date  Enter in MM/DD/YYYY format

- Once a submittal is made an email response will include an Excel file showing error or acceptance messages.



Portal Return File



# LM I-GUIDES



Integrated Global UID Enterprise Solution (I-GUIDES) is Lockheed Martin's UID database. Below a query can be made on Purchase Order and Line Item numbers and all UID records received for a particular PO can be reviewed.

**I-GUIDES™**  
Integrated Global UID Enterprise Solution

Lockheed Martin Proprietary Information

LOCKHEED MARTIN

7/29/2010  
Bill Still  
AERO\_PROD - Aeronautics Production Environment

Main ▾ Print ▾ View ▾ Edit ▾ File ▾ Administration ▾ Tools ▾ Help ▾

### UID/Mark File Export - Excel Format

This UID/Mark File Export function allows for the exporting of UID or Mark data in the same format as required for importing data. The file created from this export function should NOT be used to submit required data to the DOD. Its only purpose is to create a file in the same format as I-GUIDES™ requires for import. If you need to create a file to submit required information to the DoD, use menus **File - Send to UID Registry**.

Enter one or more of the following: (Partial starting values may be entered)

UID:	<input type="text"/>
Original Part Nbr:	<input type="text"/>
Serial:	<input type="text"/>
Enterprise ID:	<input type="text"/>
MFG Identifier:	<input type="text"/>
PO Number:	623003
PO Line Item:	3
Prime SCD & Dash Nbr:	<input type="text"/>
Current Part Nbr:	<input type="text"/>
Program Email:	<input type="text"/>





# I-GUIDES Query Result



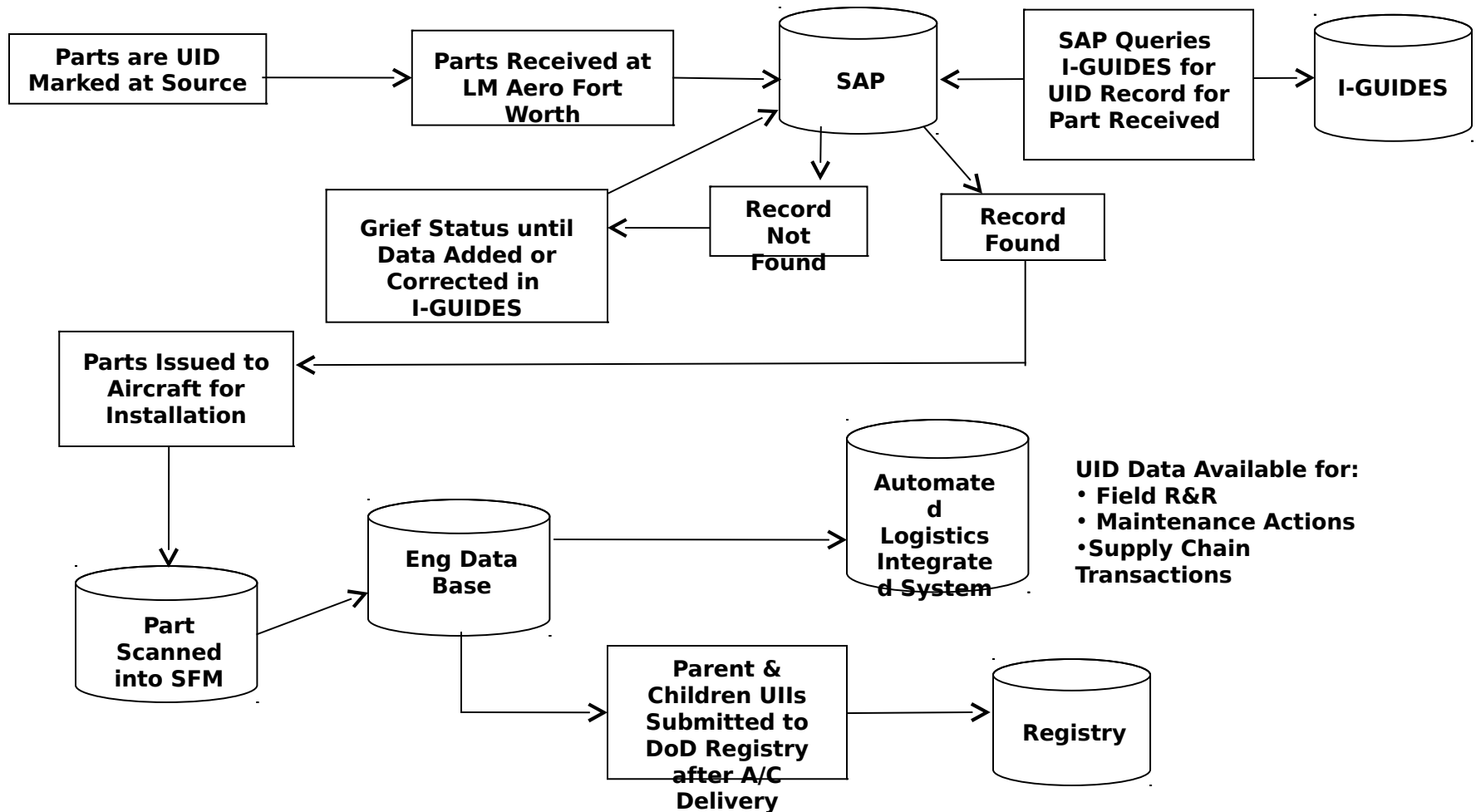
**Return query shows 11 records received for this  
PO/Line Item.**

UID	PO Number	PO Line Item
D941172ZXX63042-00010041	623003	0003
D941172ZXX63042-00010042	623003	0003
D941172ZXX63042-00010043	623003	0003
D941172ZXX63042-00010044	623003	0003
D941172ZXX63042-00010045	623003	0003
D941172ZXX63042-00010046	623003	0003
D941172ZXX63042-00010047	623003	0003
D941172ZXX63042-00010048	623003	0003
D941172ZXX63042-00010049	623003	0003
D941172ZXX63042-00010050	623003	0003
D941172ZXX63042-00010051	623003	0003

**11 records found displayed on 1 page**



# Data Flow





# Scanning of UID on Production Line

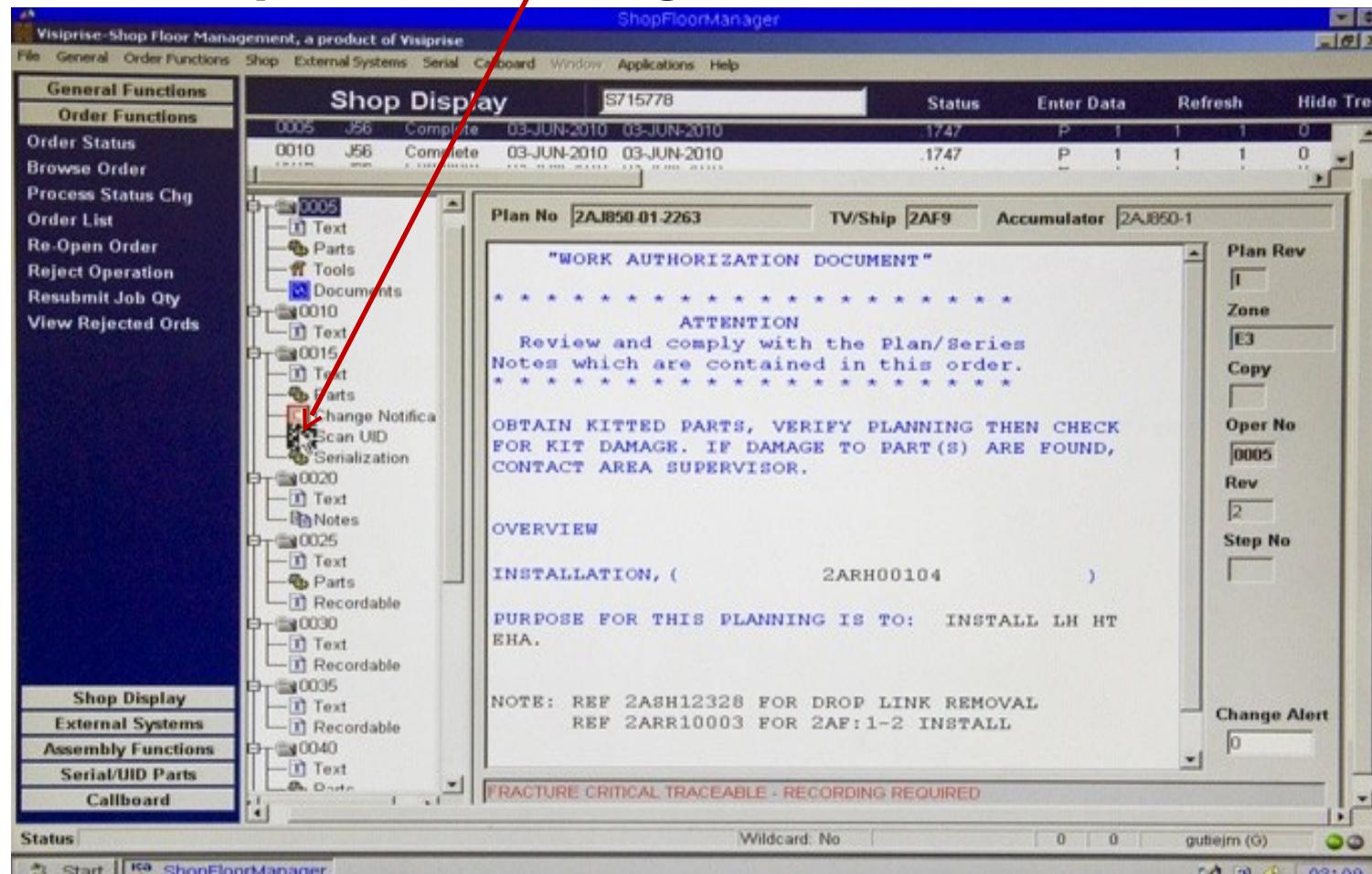
**UID Parts are scanned prior to installation. Once a part is scanned, the Shop Floor Manager (SFM) program queries I-GUIDES for a matching data record.**

**Mechanic opens the Actuator installation operation in SFM**





## Mechanic selects the Scan UID icon in the operation step of SFM to begin IUID collection

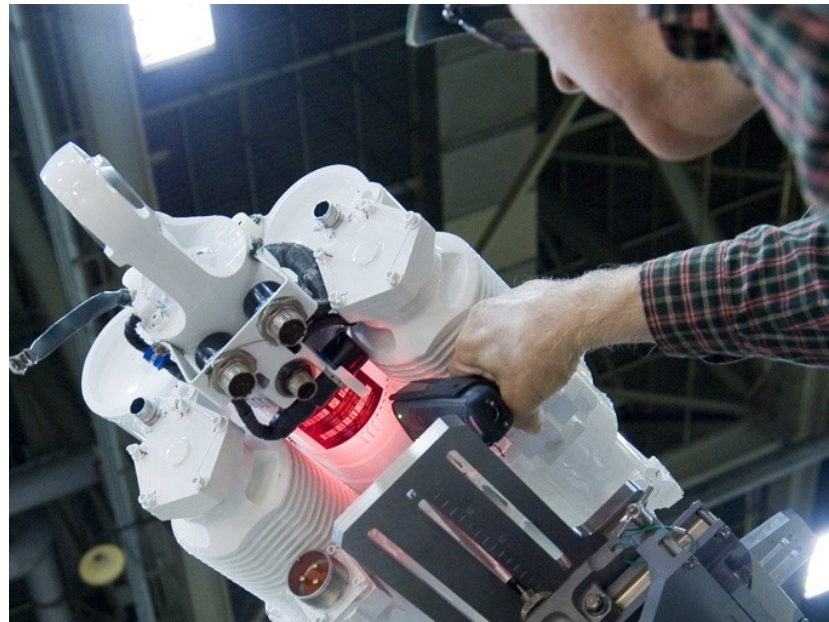






**1. The IUID mark on the part's label.**

**3. Mechanic scans the IUID with hand held reader.**



**2. The mechanic searches for the IUID mark following SFM instructions to observe and record IUID.**



**After the scan, the mechanic connects the reader to the computer to transfer the scan information to SFM.**



**SFM is linked to I-GUIDES and the pop-up in this picture shows the data has been retrieved successfully. The mechanic checks the serial number, cage code and part number.**

Verify Part Marking

Data Needs to be verified

Please verify Part Markings:  
Current Part Number  
Original Part Number  
Serial Number and CAGE  
Matches Supplier provided  
Current Part Number  
Original Part Number  
Serial Number and CAGE  
displayed on screen.

Click on "Yes" button if the data matches label/markings  
Click on "No" button if the data does not match scanned label/markings  
Click on "Re-Scan" button to rescan the part  
Click on "Cancel" button to cancel current part and continue scanning next part or return to previous screen

Supplier/I-GUIDES Data

Current Part Number	JARV01110-0000	Serial Number	0013
Original Part Number	JARV01110-0000	CAGE	002106
Prime SCD and Dash Number	JARV01110-0000		
Batch Lot Number			



**The Actuator CAGE, Original Part Number and Serial Number = UII D821062ARV01110-00080013 are collected and linked to the parent aircraft UII.**

Order ID: S715778 Part Number: 2A050-1 Part Name: A609LB-I-HT EHA TV/Ship: 2AF9

Oper No: 0015 SWBS: J050 Plan Type: 01

**Component Parts**

Plan Parts List Part Number	Original Part Number	Serial Number	CAGE	Current Part Number	Prime SC Dash Number
2ARV01110-0008	2ARV01110-0008	0013	82106	2ARV01110-0008	2ARV01110-0008

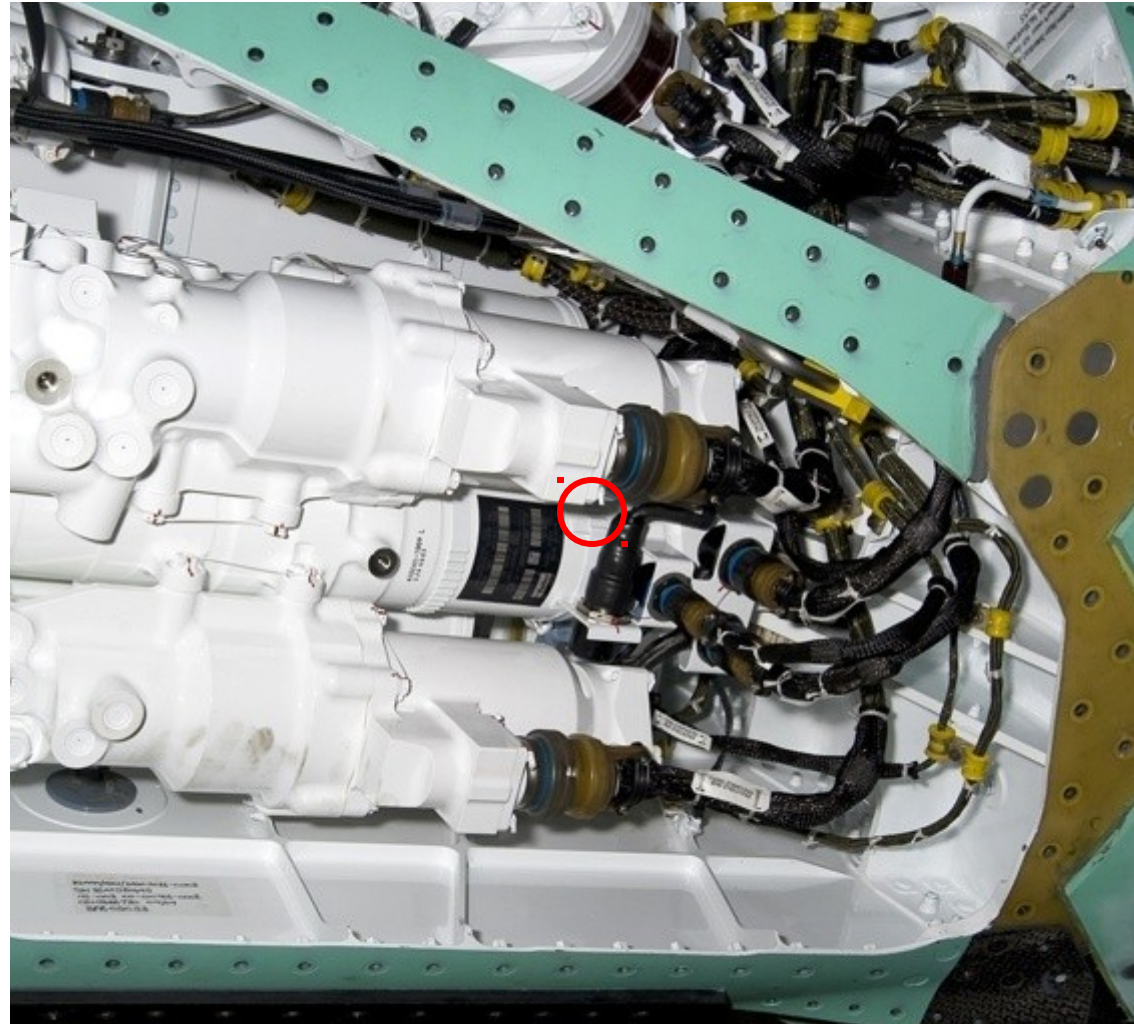
I

Send Get Override No UID Marking On Part Manual Entry Rescan Cancel





**The Actuator  
installed on the  
aircraft with the  
UID mark  
visible.**







# UID Shop Floor Callboard Action



- If the record is not found in I-GUIDES, the technician must manually enter the required data fields and a Callboard action is logged.
- A F-35 UID integrator must resolve the issue to close out the call board request.

Group Name	F-35UID	Sub-Group ID	UIDINTEGRATOR
Send to Group Name	F-35UID	Send to Sub-Group	UIDINTEGRATOR
Call Type	FREEFORM	Priority	HIGH
Call Description	IGUIDES error - Part does not exist in IGUIDES.		
Date Required		<input type="checkbox"/> Production Affected	
Remarks:	Recipient Name		
<div>Original Part Number: 2GLV14002-0022 Current Part Number: 2GLV14002-0022 Batch Lot Number: n/a Serial Number: 228 CAGE: 81982.</div>			
Call Status	Not Started	Employee No.	
Answered By		Completion Date/Time	
Start Date/Time		Employee No.:	
Last Updated By:		Est. Completion Date	
Remarks:			



# Summary

- Clear requirements and upfront coordination with suppliers are essential in receiving correct UID marks and associated data submittals.
- Check points within the process help ensure correct marks and data are available when parts are scanned prior to installation.
- UID data is linked across multiple LMA databases (I-GUIDES, Automated Logistics Integrated System, SAP) and provides asset management throughout production and sustainment processes.

QUESTIONS?